

IH. 8. Jan. 1857 Harl Dyck Puntine Notes in examining Horkelygh Dan. 1857 Hopalea vorrionellissen without spikes, is what I had supposed tobe O. Fire indica. See below. Theis Micorrelif is well chamaterize by the clongated thick smoothish joints. Op, elongate is similar, but has stouth flatte joints into but M. Dejecta shas also elongated joints. Out more rompressed and very spring. Op. Jerox as leccraranths species which are veg sping, veg interting, but jort, namon, long O. Cecrotriche som what similar. but easily disting wisher by the older spring beroning hair like, voverig the lower fut Asten a e old joints. O. monaranths, a stort well mark plant, jast now i flower, spikes MISSOURI BOTANICAL copyright reserved

O. Firm inder de mayber tillizette of fix supelled - sultivated engathere vår warm obrinater - abmost spine less - with large, thick, over on obovite, broad joints. Vergresitates is O. stricte. O. prendelana is also verg similan but starter, with layer jonts. O. Derumann is every Sky a starte plant with very land thick joints on yellowsh brown flowers. O. Tune is well chambagin by the egensely prominent pulville. almost fuberiles! esperially on Thing stout the your joints. and numerous. O. Sillenii Stake to be the plant which is commonly metivated from - Aldonis for grafting - spries stout and nimerous — no taberles!

0 1 2 3 4 5 6 7 8 9 10

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GARDEN

Op. Lagileauni sesembler a good deal On Canizera, which I wonder to fet Its name from the worldy spices of the young plants to same as my plants.

Spines however i O. lamigen seem to
be more naming (more close) and finer. Also near O. Middlett, but they oneghas also more numerous and sleander spins see below IV. Opolyanthe is a well revoyable
speried - joils smallish, very spring. entt. O. Pottsi seen to be the same as O. albirans. Or sulphuren er veg spring plat stout ent, not at all near O. way our con or. O. serieu averperulg van Kaeleni Molaconi is similar to O. Refining in similar to O. Refining in similar to O. Refining in similar to one of the similar of the sound of the similar of the signer of the large pale yellow. pole, 2-5 I number or off none MISSOURI

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Opnutie grandis is very possible meg forstead petals, it is week, but by trying up like my op. marroshiga! joint, prople spotted a retiralete mille siged spins flat frist gear white, but i . The 2 or 3° deason black! 1-3: munden. - flower figure & the Sele very much like mine – lent stigmate 2, with several bristles flat rooms with long white glishening Third joints rather large. It resembles somewhat to O. trinountha sur below Cobirelete seens much like O. lugelse, O. Amyolara a stort end very veg skamtenstir sping spenies -with white spines O maenobegn is always pale greens MISSOURI BOTANICAL copyright reserved

GARDEN

cm

Host. bot. Venet Jan. 1959. Quantine applanatue The following have been mised from seeds reverbed by one Tirrolomini, who send them from Celifornia about 1842 1, Op. Picrolomini very Glacerous with immented 10-20 inches les 8-15 inches d'ameter. Mes langet plant 10 feet high. The a pateutour growth; arcolone 2 inches ditait. with sor 2 thin gellow spines; old joint with more spines; fruit miset mæ. bluisk puple, at last 3 inches in Sauch (Acchinger's revollection) 2, %. ignessens 8 feel high, joints thick, green, brown 10 x & inches with 2 - 5 stout brown its pines. (sue of this sheet) 3, Op. ræstrata" 4 feet high, pater long exactly like O. lagelmanni for shith I take MISSOURI

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Aright treelike Opuntide orner many is, this unique Collection, mon beautiful than I have even seen it . The most trutike are, 0. leuraranthy 8-9 fut high spirky Smak. a milier en sproles trus Thing. 12:XX8: a. Kerox O', catacanth, 8 to -Mindes 1. Tomentoja 2-10 Mary. l'. Spirosission 19-14 duity. O. Sejects 12 Lee above O. ignesseurs All the names in this garden are not very reliable, but the plants are beautiful I of course describe under the names here Munter leccoaranthe. 8-9 feel high, joint spirit unde 8-15 inden long, arrolae approprint, Hank 4-6 inches digmeter. O. kerox 7-8 feel high ; jorhits smallen trunk dosely overed with whitch gray spikes O. spinosissima, now as old as the Garden 43 years (since 1815) think 6 inches d'ameter joints elongated, bit small, full of flowers BOTANICAL

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but has never born fruit get avedre of trusk only I inch or less lipart, spin, numero, yellowish _ Is not this pay anthon? Op. ratarantha simular to ferox; I feel high, Joints 8-15 inches long 4-5 broad. spines Jenselly rovering steer V. dejects (or Nopalea) has oftenflowered; 12 feet high - arrola of stear th-2 inh, apart with for that spires; arcolae on marrow bong joints with 1-3 sprines. - fleasers purgling futely end, genitates excent. Otherwish ale 30 anola on tabarles, pule gellowit; - pit sboote 1/4 juch long. - Arcola 73 arranget. Wall Do. S. llerii s. glancophylla (nd glauros!) (is no do of Op. polyantha) 6-7 feet high; even now rovered with afflowers and fruit - fil small, i inch les, fryn form Cour part of fit maked,

squite lay britles, scaroly will and the sound on tuburdes, of ambilities flat stigente MISSOURI

BOTANICAL GARDEN

Mutt: tomentosa -arcolae sranely venanked for on it - Joint 4-5- Muly Brand 9 8-12 long - Foundose bernies oval, tomentose, redvit brown, Arcola some eskat tuberrulated, areola close 35-45 - noule = 3 Amangent - brilles Mubilitus deep. von short, usky. Engelmann Papers

O'mbessens 3-9 feet high; tente truck covered with large convex arcolar - 4 day "apart, very different from last. Guite spineless. Op. leccrotrichs s feet high, but without truck propely speaking; bushy dough covered with very long bristly flexues Africa. O. Amyrlaea 6 feel high beerly, steen 4 indes thick, not very spinones; the California Op. iguesreur ir ver smile with white augular spines. but more sping (at the other ignesses mustion I above has brown the spents) MISSOURI BOTANICAL

Hot Ken dag 1887. "Mour with large start terberrales jonits, a fan spines. Haue wrong O. shtermedig seems = O. Alafinesqui.

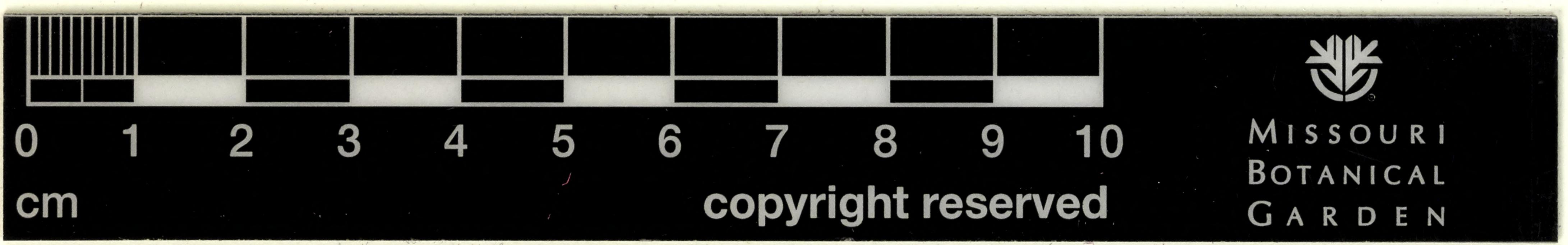


CESTICE ENGELMANN PAPERS

Frekin vaniflom an alvelike



Op. Eigelmanni ! a fine sperim forthe seeds of Frarilizenes with the work at the base of TE den, 6. Lingtheimen enskrig hyterd, at noor 0. Gransiflore took Vindole Jan 1858



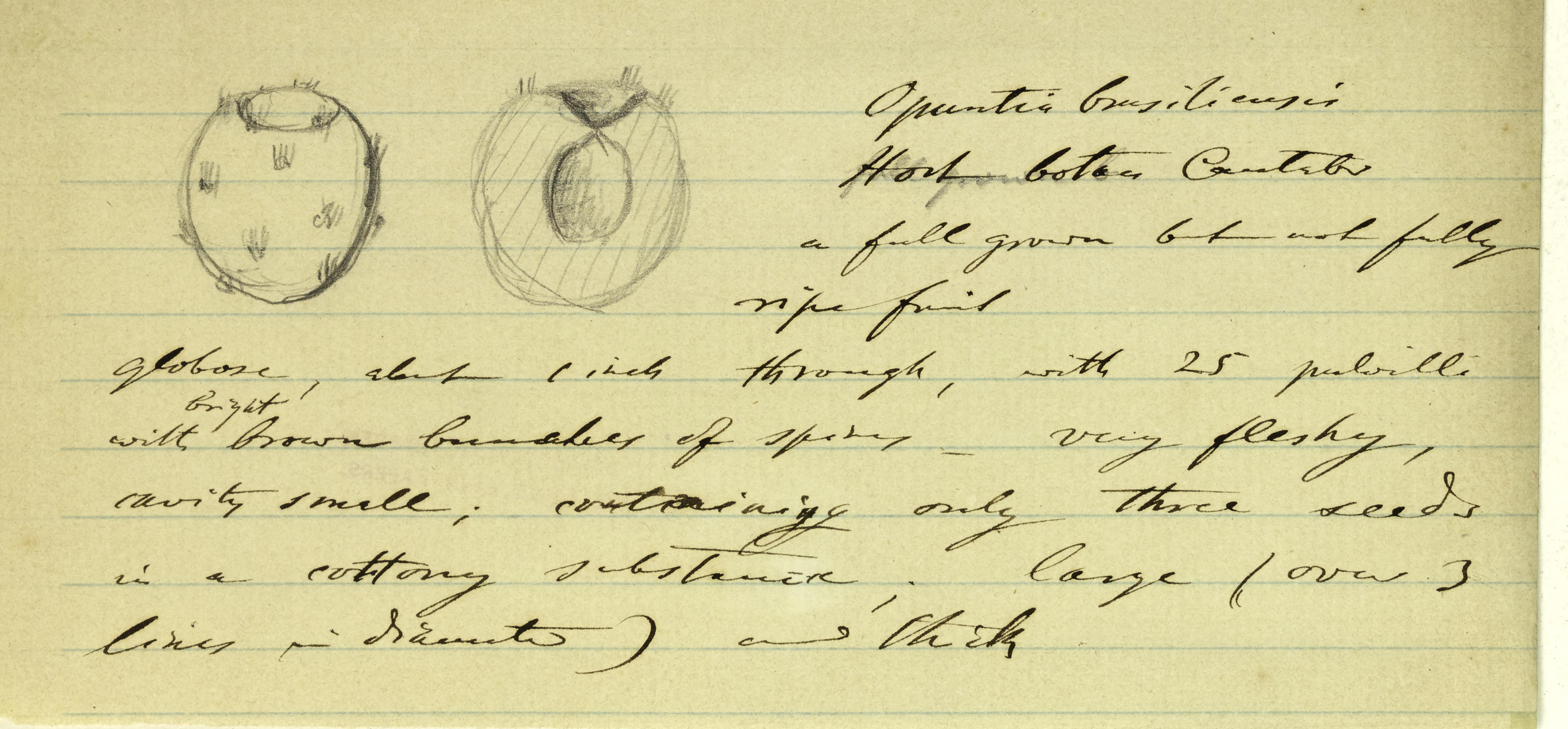


Op. sericea Cheli! suems the same as. oven O. Arfinesgeni i - which is a singulan corneriden, et the chilia. futeries a o the chilie day

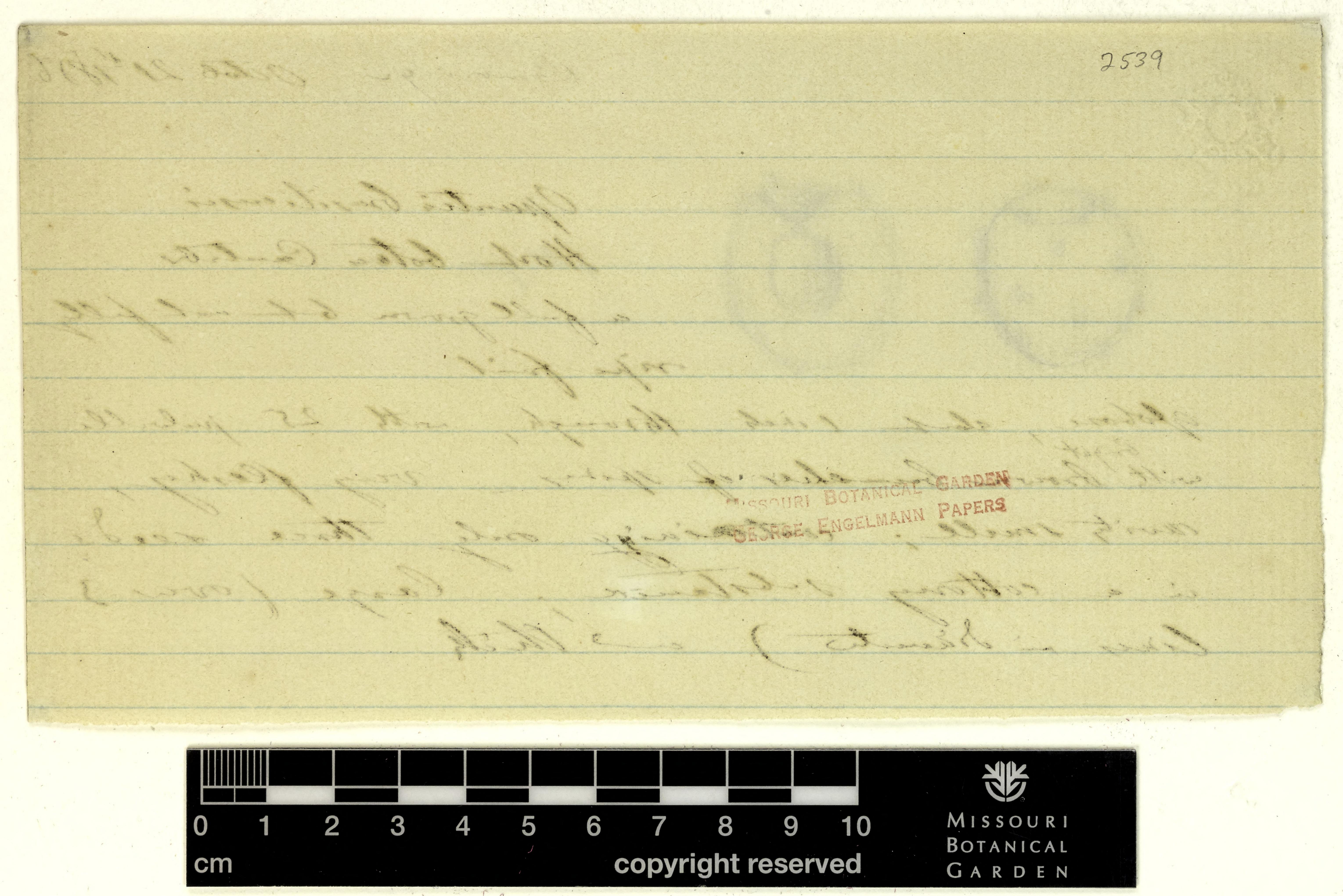


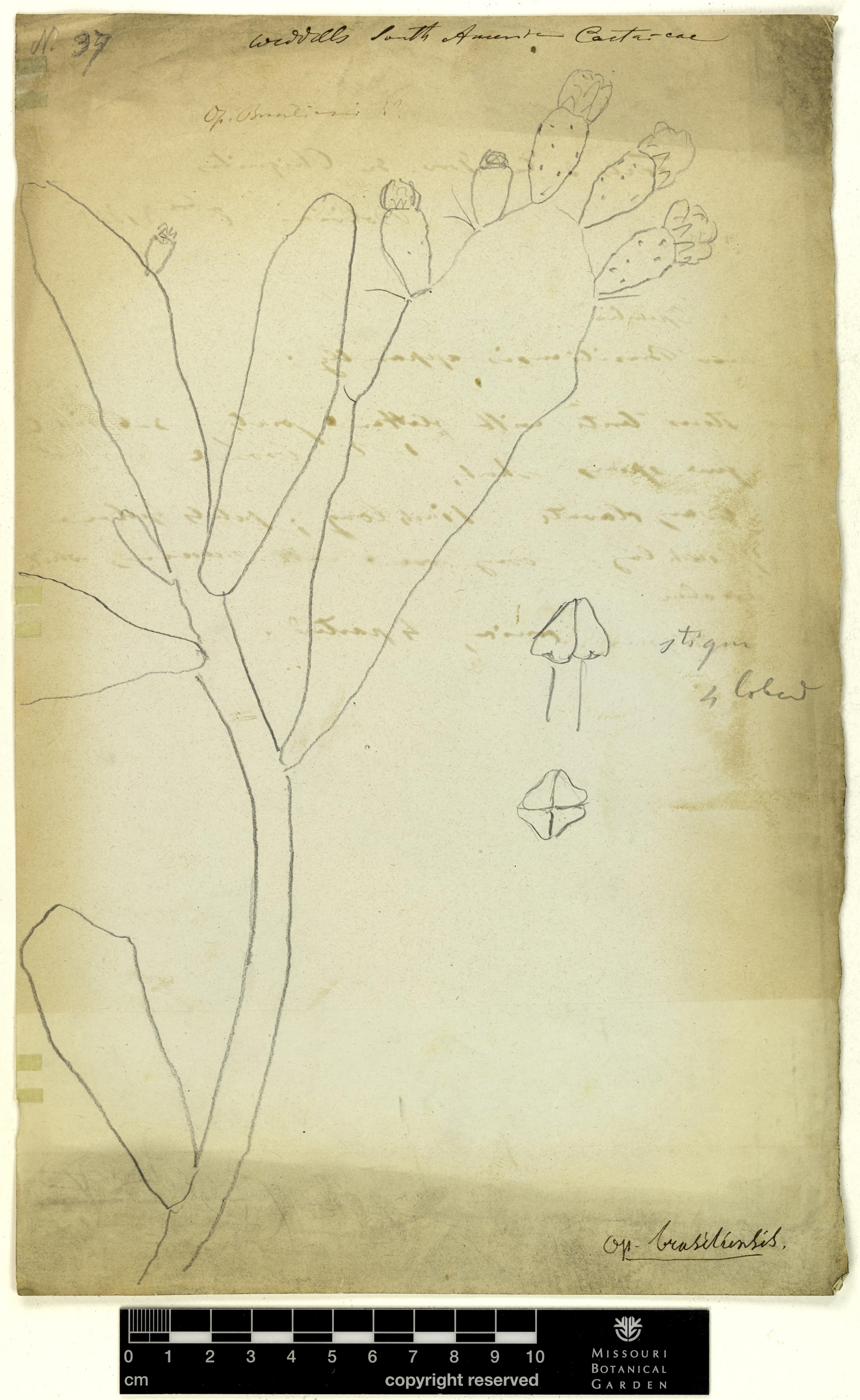


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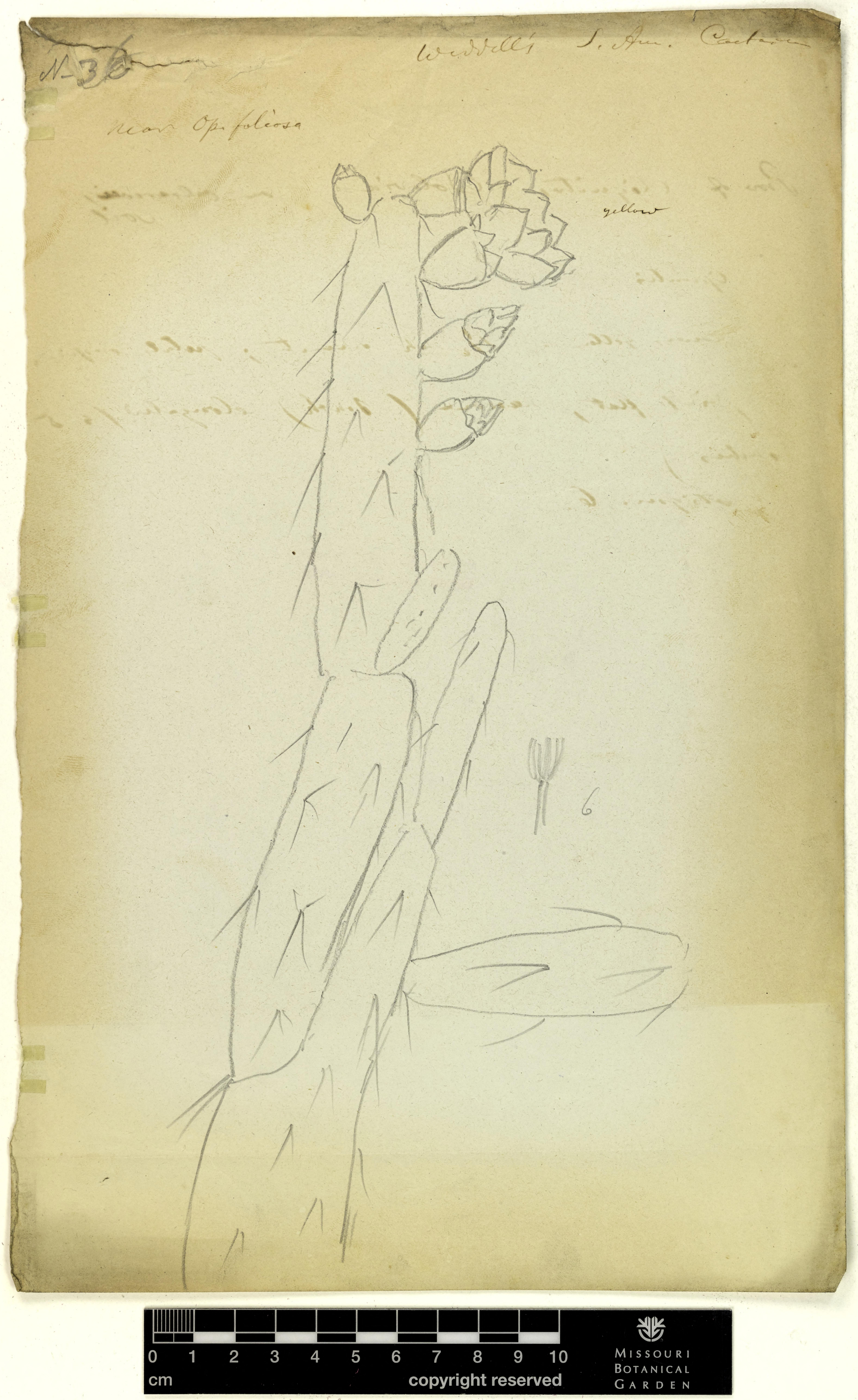








sorets de la 1 m. de chique las Bolin 8 bre 1845 Openhi. ner Brusiliansis æppandly: stear tents with flattere joints 3-6 miles for spinis, short, ovang clavate tihellong, putats gellow 1/2 insh lag. over over with name. while ancolai. stigne somir, 4 parted. MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS MISSOURI BOTANICAL copyright reserved cm GARDEN




Brow of Chiquito, Dolivian a calvareoris Qualty flowers gellen. Ih ich danst, petal, respects joint flat, nammer (1.nrh) elongatud /4-5 rache, 2750m. 6. MISSOURI BOTANICAL GARDEN. GEORGE ENGELMANN PAPERS

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GARDEN



Prov. de Cintà Avl. via

Joseph digitar davate & suches los 4 broad.

Jule green

Arcolar distant

Spins whitish shout 1/2 shih by usually

mitt a few smaller ones below.

Quay flatters.

Cheron sepels re Ish armit.

petel, yellow broad.

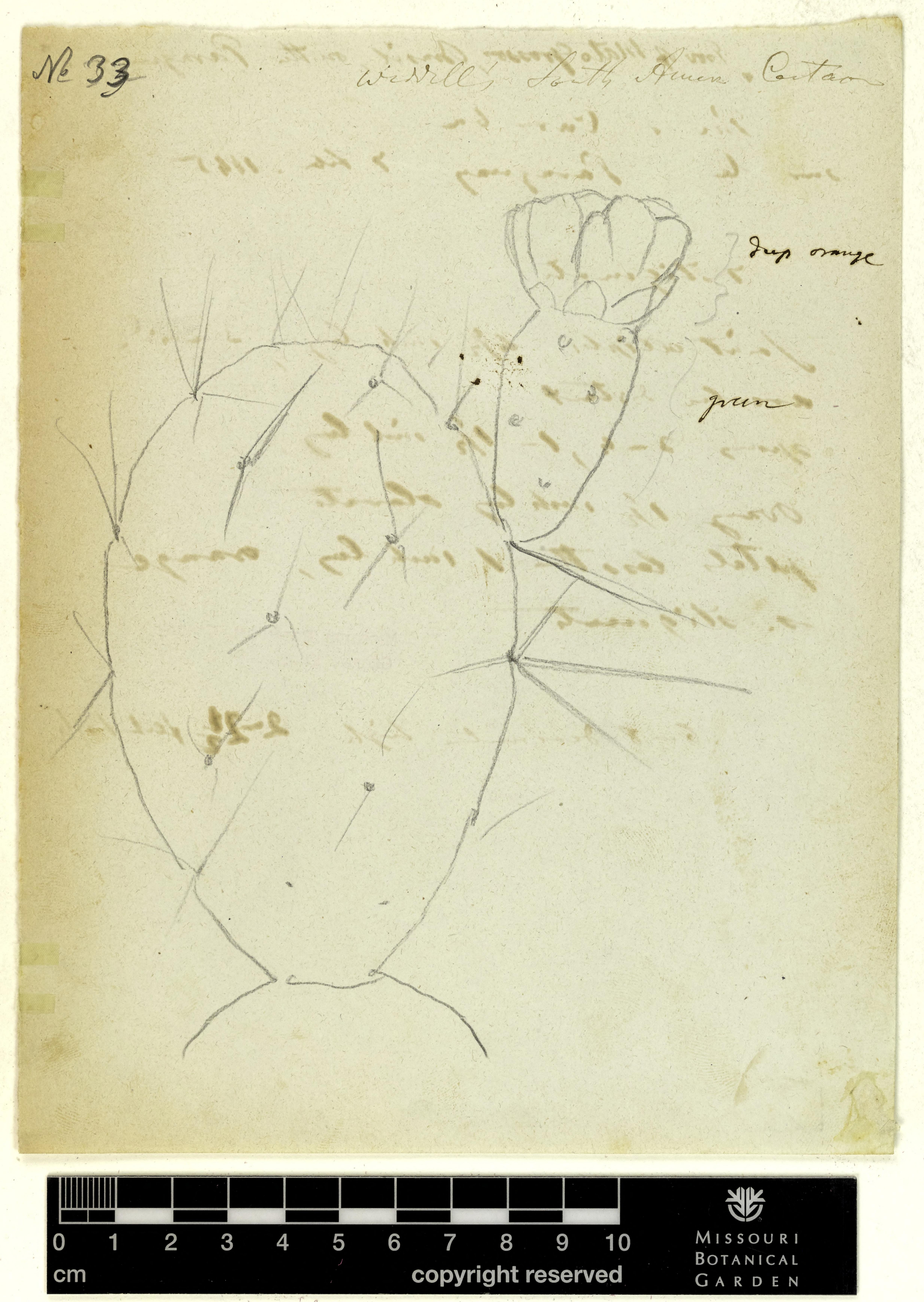
Syle with & Division,

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avng romme plad æsrendig, brunking alet 2 ov 2 fr feet high.

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Prov of Mato Grosso, Brusil, on the Pangue, y." Sou de Carmba som le Panguay 3 The 1845 7 JZigmali Sout delipter 4/2 inh by 3 wide anolu Istart spran 3-4,1-1/2 minh lag over 1/2 inh by about petel, les, the 1 mich les, orange s. Hjent MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS 6-8 deriant light 2-22 feit bigh

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